

Payment Automation Manager (PAM)

CTX Addendum Supplement to
PAM Standard Payment Request v5.0.0

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Table of Contents

CTX Payment Submission through PAM	3
CTX Payments Requiring Multiple ACH Addendum Records.....	4
CTX Common Issues.....	5
CTX Example: Addenda Information field within the ACH Addendum Record of the Standard Payment Request.....	6
ACH Addendum Record - Payment with Interest Penalty	7
Addenda Information Field	8
Addenda Information Field – Segment Details.....	9
ISA Segment	9
GS Segment.....	11
ST Segment	12
BPR Segment.....	13
REF Segment	15
N1 Segment.....	16
ENT Segment.....	17
RMR Segment	18
SE Segment	20
GE Segment.....	21
IEA Segment.....	22

CTX Payment Submission through PAM

- CTX provides the ability to make one vendor payment for multiple invoices.
- CTX Payments are ACH payments with additional information of up to 9,999 addenda records per payment (999 ACH Addendum records with ten 80-character Addenda).
- PAM will accept CTX payments using version 5.0.0 of the Standard Payment Request (click [here](#) for a copy).
- PAM will accept only wrapped 820 addenda.
- PAM serves as a pass-through for CTX addenda, performing limited validations and no verification of balancing.
- PAM's addenda segment validations are shown in the sections for individual segments.
- PAM alters addenda segments only if offset(s) are taken by the Treasury Offset Program (TOP). Details are shown in the sections for individual segments.
- NACHA rules dictate the use of specific characters for data element delimiters and segment terminators.
 - "*" must be used for the data element delimiter
 - "\" must be used for the segment terminator
- ***The specific values exchanged between trading partners (agency-vendor) are determined and agreed-upon by those trading partners.***
 - ***Actual values will vary, based upon the trading partner agreement.***
 - ***Examples of CTX payments include travel / credit card payment, medical allotment and vendor payment.***
 - ***PAM will not perform validations that are specific to any trading partner agreement.***
 - ***It is possible to pass PAM's validations and testing, yet not comply with a trading partner agreement.***
 - ***Refer to the trading partner agreement to assure complete compliance.***
 - ***Also refer to ASCX12 requirements to assure compliance.***

CTX Payments Requiring Multiple ACH Addendum Records

- CTX Payments can have up to 9,999 addenda records per payment (999 ACH Addendum records with ten 80-character Addenda).
- If the 800 positions of the current Addenda Information field have been populated, and additional addenda information remains, perform the following steps until all addenda information has been added:
 - For the current ACH Addendum Record, leave the filler in characters 823-850 blank.
 - Create a new ACH Addendum Record (up to the max of 999 records).
 - Populate Record Code with '04'.
 - Populate Payment ID with the same value previously used.
 - Populate Addenda Information with the next 800 positions of addenda information.
 - ✓ It is correct and expected that the 800 positions of Addenda Information in the 2nd through 999th ACH Addendum Record will sometimes split data elements.
 - ✓ Populate the entire 800 positions of the Addenda Information field before creating the next ACH Addendum Record.
 - ✓ Do not add extra spaces to pad records to complete the 800 positions.
 - Leave the filler in characters 823-850 blank.

CTX Common Issues

- Amounts

- The BPR02 Monetary Amount must equal the sum of the RMR04 Monetary Amounts – watch this when applying discounts to invoice amount.
- Amounts should contain a decimal point, for example **1703.15**

This differs from amount fields in the remainder of PAM's Standard Payment Request which should not contain a decimal point, for example **170315**

- If the RMR04 Monetary Amount is negative, use a “-” followed by the amount.
- Do not include commas in any amount fields.

- Counts

- The SE01 Number of Included Segments should count all segments from ST to SE (including both ST and SE).
- Do not include commas in any count fields.

- Data Elements

- Use two consecutive data element delimiters only when a data element is skipped. Using ** for another purpose can cause information to shift.
- Do not “cushion” data elements with extra spaces. This can cause field length errors.

CTX Example: Addenda Information field within the ACH Addendum Record of the Standard Payment Request

- The example conforms to versions 3040 and 3050 of the EDI X12 format. PAM will not require that CTX payments adhere to a specific version.
- The example is provided for demonstration purposes and does not comply with any specific agreement. Inclusion and population of specific segments will be dependent upon the requirements of an agreement.
- ***The specific values exchanged between trading partners (agency-vendor) are determined and agreed-upon by those trading partners.***
 - ***Actual values will vary, based upon the trading partner agreement.***
 - ***Examples of CTX payments include travel / credit card payment, medical allotment and vendor payment.***
 - ***PAM will not perform validations that are specific to any trading partner agreement.***
 - ***It is possible to pass PAM's validations and testing, yet not comply with a trading partner agreement.***
 - ***Refer to the trading partner agreement to assure complete compliance.***
 - ***Also refer to ASCX12 requirements to assure compliance.***

CTX Addendum Supplement to PAM SPR v5.0.0

ACH Addendum Record - Payment with Interest Penalty

- The ACH Addendum Record's **PaymentID** (position 3-22 of RecordCode '04') corresponds to the ACH Payment Data Record's **Payment ID** (position 259-278 of RecordCode '02').
- The 850 positions of the ACH Addendum Record will be continuous.
The example shows the ACH Addendum Record wrapping at 100 positions.

```
04nnnnnnnnnnnnnnnnnnnnISA*00*000000000*00*000000000*ZZ*US TREASURY 310*ZZ*EDI MISC *140421*1
1
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
046*U*00200*000000000*0*P~\GS*RA*US TREASURY 310*EDI MISC*140421*1046*0*X*003050\ST*820*000000526\B
2
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
PR*C*611933.38*C*ACH*CTX*01*101036151*Z*12345678*12345678 **01*999999999*DA*12341234123***\REF*72*V
3
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
C4099A\N1*PE* FEDERAL EXPRESS *FI*123456789\N1*PR*UNITED STATES DEPT OF TEST\ENT*10\RMR*IV*5*AI*3427
4
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
.07*3427.07*0\REF*RB*2.125%*Interest 165 Days@1.75%\RMR*IV*1*AI*1458.13*1458.13*0\REF*RB*2.125%*Inte
5
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
rest 165 Days@1.75%\RMR*IV*1*AI*181191.44*181191.44*0\RMR*IV*5*AI*425856.74*425856.74*0\SE*13*000000
6
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
526\GE*1*0\IEA*1*000000000\
7
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
8
0
-----1-----2-----3-----4-----5-----6-----7-----8-----9-----0
8
5
0
-----1-----2-----3-----4-----5-----
```

CTX Addendum Supplement to PAM SPR v5.0.0

Addenda Information Field

- The ACH Addendum Record (position 23-822) contains an 800-position Addenda Information field, as shown below.
- Line breaks have been added between Addenda Information segments for readability.

Hyperlink	Segment
#1	ISA*00*0000000000*00*0000000000*ZZ*US TREASURY 310*ZZ*EDI MISC *140421*1046*U*00200*0000000000*0*P*~\
#2	GS*RA*US TREASURY 310*EDI MISC*140421*1046*0*X*003050\
#3	ST*820*000000526\
#4	BPR*C*611933.38*C*ACH*CTX*01*101036151*Z*12345678*12345678 **01*999999999*DA*12341234123***\
#5	REF*72*VC4099A\
#6	N1*PE* FEDERAL EXPRESS *FI*123456789\
#7	N1*PR*UNITED STATES DEPT OF TEST\
#8	ENT*10\
#9	RMR*IV*5*AI*3427.07*3427.07*0\
#10	REF*RB*2.125%*Interest 165 Days@1.75%\
#11	RMR*IV*1*AI*1458.13*1458.13*0\
#12	REF*RB*2.125%*Interest 165 Days@1.75%\
#13	RMR*IV*1*AI*181191.44*181191.44*0\
#14	RMR*IV*5*AI*425856.74*425856.74*0\
#15	SE*13*000000526\
#16	GE*1*0\
#17	IEA*1*000000000\

Addenda Information Field – Segment Details

ISA Segment

[\(top of example\)](#)

ISA Interchange Control Header (position controlled fixed length)			
Segment Characteristics		Segment Edits	Segment Alterations
<ul style="list-style-type: none"> 1st segment, outermost envelope Identifies the sender, date, time and control number Segment must match the IEA trailer segment 		<ul style="list-style-type: none"> Payment will be marked invalid if any of the following conditions are true: <ul style="list-style-type: none"> if the required ISA segment is missing if the 1st ACH Addendum Record position 23-25 does not contain “ISA” if the segment delimiter = the segment terminator <ul style="list-style-type: none"> segment delimiter = ACH Addendum Record position 26 segment terminator = ACH Addendum Record position 128 	<ul style="list-style-type: none"> PAM will not alter the ISA segment.
<p><i>#1 - Example EDI Transmission:</i> ISA*00*0000000000*00*0000000000*ZZ*US TREASURY 310*ZZ*EDI MISC *140421*1046*U*00200*0000000000*0*P*~\</p>			
	EDI Data Element Name	Disbursement Data	Length
	Segment Identifier	ISA	3
ISA01	Authorization Information Qualifier	00 (No Authorization Information Present)	2
ISA02	Authorization Information	0000000000 (Auth. Info. - Must be 10 Characters)	10
ISA03	Security Information Qualifier	00 (No Security Information present)	2
ISA04	Security Information	0000000000 (Security Info. - Must be 10 Characters)	10
ISA05	Interchange ID Qualifier	ZZ (Mutually Defined)	2
ISA06	Interchange Sender ID	US TREASURY 310 (15 Characters)	15
ISA07	Interchange ID Qualifier	ZZ (Mutually Defined)	2

CTX Addendum Supplement to PAM SPR v5.0.0

ISA08	Interchange Receiver ID	EDI MISC (15 Characters)	15
ISA09	Interchange Date	140421 (date of transmission (YYMMDD))	6
ISA10	Interchange Time	1046 (time of transmission ((HHMM))	4
ISA11	Interchange Control Standards Identifier	U (signifies use of ASC X12 Standards)	1
ISA12	Interchange Control Version Number	00200 (Recommended version for maximum acceptability)	5
ISA13	Interchange Control Number	000000000 (9 character number assigned by sender)	9
ISA14	Acknowledgement Requested	0 (No Acknowledgment requested)	1
ISA15	Test Indicator	P (P=Production; T=Test)	1
ISA16	Sub-element Separator	~ (Tilde)	1
	Segment Terminator	\	

GS Segment

[\(top of example\)](#)

GS Functional Group Header		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> 2nd segment Groups similar transactions in an interchange envelope Goes with GE trailer segment 	<ul style="list-style-type: none"> Payment will be marked invalid if the GS segment is missing 	<ul style="list-style-type: none"> PAM will not alter the GS segment.
<p><i>#2 - Example EDI Transmission:</i> GS*RA*US TREASURY 310*EDI MISC*140421*1046*0*X*003050\</p>		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	GS
GS01	Functional ID Code	RA - Payment Order/Remittance Advice
GS02	Application Sender's Code	US TREASURY 310
GS03	Application Receiver's Code	EDI MISC
GS04	Date	140421 (YYMMDD)
GS05	Time	1046 (HHMM)
GS06	Group Control Number	0 (number originated and maintained by sender)
GS07	Responsible Agency Code	X (signifies ASC X12)
GS08	Version/Release ID Code	003050 (example of a 3050 version)
	Segment Terminator	\

ST Segment

[\(top of example\)](#)

ST Transaction Set Header		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> • 3rd segment • Identifies the transaction type and assigns a control number to the transactions • Goes with SE trailer segment 	<ul style="list-style-type: none"> • Payment will be marked invalid if the ST segment is missing 	<ul style="list-style-type: none"> • PAM will not alter the ST segment.
#3 - Example EDI Transmission: ST*820*000000526\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	ST
ST01	Transaction Set ID Code	820 (signifies Payment Order/Remittance Advice)
ST02	Transaction Set Control Number	000000526 (Control Number ID assigned by sender)
	Segment Terminator	\

BPR Segment

[\(top of example\)](#)

BPR Beginning Segment for Payment Order Remittance Advice		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Beginning segment for payment order/remittance advice Contains total payment amount and information for the transfer of funds from payer to payee to occur (account #, DFI #, etc.) 	<ul style="list-style-type: none"> One BPR segment per payment is expected Payment will be marked invalid if the BPR-02 data element is non-numeric 	<ul style="list-style-type: none"> BPR02 - If an offset is taken by the Treasury Offset Program (TOP), PAM will replace the existing value with the Partial Payment Amount.
#4 - Example EDI Transmission: BPR*C*611933.38*C*ACH*CTX*01*101036151*Z*12345678*12345678 **01*999999999*DA*12341234123***\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	BPR
BPR01	Transaction Handling Code	C (indicates Payment and Remittance Advice)
BPR02	Monetary Amount	611933.38 (\$611,933.38 Net Disbursement - sum of RMR04 Amounts)
BPR03	Credit/Debit Flag Code	C (code for Credit)
BPR04	Payment Method Code	ACH (code for Automated Clearing House)
BPR05	Payment Format	CTX (code for Corporate Trade Exchange)
BPR06	(DFI) ID Number Qualifier	01 (signifies RTN)
BPR07	(DFI) ID Number	101036151 (FMS-KFC's RTN)
BPR08	Account Number Qualifier Code	Z (Mutually Defined)
BPR09	Account Number	12345678 (ALC of payer Federal Program Agency)
BPR10	Originating Company Identifier	12345678 (indicates 8-position ALC followed by 2 spaces)
BPR11	Originating Company Code	(Not used in this example. May be required by Trading Partner Agreement.)
BPR12	(DFI) ID Number Qualifier	01 (signifies RTN)
BPR13	(DFI) ID Number	999999999 (receiving DFI's RTN)

CTX Addendum Supplement to PAM SPR v5.0.0

BPR14	Account Number Qualifier Code	DA - Demand Deposit (DFI Account Type)
BPR15	Account Number	12341234123 (Vendor's account number at DFI)
BPR16	Effective Entry Date	<i>(Not used in this example. May be required by Trading Partner Agreement.)</i>
BPR17	Business Function Code	<i>(Not used in this example. May be required by Trading Partner Agreement.)</i>
	Segment Terminator	\

REF Segment

[\(top of example\)](#)

REF Reference Numbers		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Specifies identifying information, including a description 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> PAM will not alter the REF segment.
#5 - Example EDI Transmission REF*72*VC4099A\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	REF
REF01	Reference Number Qualifier	72 (Payment Schedule Reference Number)
REF02	Reference Number	VC4099A (payer schedule number)
REF03	Description	(Not used in this example. May be required by Trading Partner Agreement.)
#10 and #12 - Example EDI Transmission (Discount on Invoice Payment): REF*RB*2.125%*Interest 165 Days@1.75%\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	REF
REF01	Reference Number Qualifier	RB (Interest Rate qualifier)
REF02	Reference Number	2.125% (use Prompt Payment Annual Interest Rate)
REF03	Description	Interest 165 Days@1.75% (information note)
	Segment Terminator	\

GS

N1 Segment

[\(top of example\)](#)

N1 Name		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Identifies a party by type of organization, name and code 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> PAM will not alter the N1 segment.
#6 - Example EDI Transmission: N1*PE* FEDERAL EXPRESS *FI*123456789\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	N1
N101	Entity ID Code	PE (indicates Payee)
N102	Name	FEDERAL EXPRESS (Payee's Name - the Vendor)
N103	Identification Code Qualifier	FI (indicates Vendor's Federal Taxpayer's ID Number (TIN))
N104	Identification Code	123456789 (Vendor TIN number)
	Segment Terminator	\
#7 - Example EDI Transmission: N1*PR*UNITED STATES DEPT OF TEST\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	N1
N101	Entity ID Code	PR (indicates Payer)
N102	Name	UNITED STATES DEPT OF TEST (Payer Agency)
	Segment Terminator	\

ENT Segment

[\(top of example\)](#)

ENT Entity		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Designates the entities which are parties to a transaction and specifies a reference meaningful to the entities 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> PAM will not alter the ENT segment.
<i>#8 - Example EDI Transmission (Invoice Payment):</i> ENT*10\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	ENT
ENT01	Assigned Number	10 (assigned by Agency to indicate start of remittance data)
	Segment Terminator	\

CTX Addendum Supplement to PAM SPR v5.0.0

RMR Segment

[\(top of example\)](#)

RMR Remittance Advice Accounts Receivable Open Item Reference (Multiple Occurrences)		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Specifies the accounts receivable open item(s) to be included in the cash application and to convey the appropriate detail 	<ul style="list-style-type: none"> The sum of RMR04 must equal payment amount in the BPR segment 	<ul style="list-style-type: none"> If an offset is taken by the Treasury Offset Program (TOP), PAM will add a new negative RMR segment containing the offset amount, before the SE segment.
#9 - Example EDI Transmission (Payment with Interest Penalty): RMR*IV*5*AI*3427.07*3427.07*0\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	RMR
RMR01	Reference Number Qualifier	IV (indicates Vendor's Invoice Number)
RMR02	Reference Number	5 (population of this data element will be agreed upon with trading partner - for example invoice number, credit card number, policy number, SSN)
RMR03	Payment Action Code	AI (Amount Paid Inclusive of Discounts & Adjustments)
RMR04	Monetary Amount	3427.07 (amount of \$3,427.07)
RMR05	Total Invoice or Credit/Debit Amount	3427.07 (amount of \$3,427.07)
RMR06	Discount Amount Taken	0
	Segment Terminator	\
#11 - Example EDI Transmission: RMR*IV*1*AI*1458.13*1458.13*0\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	RMR
RMR01	Reference Number Qualifier	IV (indicates Vendor's Invoice Number)
RMR02	Reference Number	1 (population of this item will be agreed upon with trading partner - for example invoice number, credit card number, policy number, SSN)

CTX Addendum Supplement to PAM SPR v5.0.0

RMR03	Payment Action Code	AI (Amount Paid Inclusive of Discounts & Adjustments)
RMR04	Monetary Amount	1458.13 (amount of \$1,458.13)
RMR05	Total Invoice or Credit/Debit Amount	1458.13 (amount of \$1,458.13)
RMR06	Discount Amount Taken	0
	Segment Terminator	\

#13 - Example EDI Transmission:

RMR*IV*1*AI*181191.44*181191.44*0

	EDI Data Element Name	Disbursement Data
	Segment Identifier	RMR
RMR01	Reference Number Qualifier	IV (indicates Vendor's Invoice Number)
RMR02	Reference Number	1 (population of this data element will be agreed upon with trading partner - for example invoice number, credit card number, policy number, SSN)
RMR03	Payment Action Code	AI (Amount Paid Inclusive of Discounts & Adjustments)
RMR04	Monetary Amount	181191.44 (amount of \$181,191.44)
RMR05	Total Invoice or Credit/Debit Amount	181191.44 (amount of \$181,191.44)
RMR06	Discount Amount Taken	0
	Segment Terminator	\

#14 - Example EDI Transmission:

RMR*IV*5*AI*425856.74*425856.74*0

	EDI Data Element Name	Disbursement Data
	Segment Identifier	RMR
RMR01	Reference Number Qualifier	IV (indicates Vendor's Invoice Number)
RMR02	Reference Number	5 (population of this item will be agreed upon with trading partner - for example invoice number, credit card number, policy number, SSN)
RMR03	Payment Action Code	AI (Amount Paid Inclusive of Discounts & Adjustments)
RMR04	Monetary Amount	425856.74 (amount of \$425,856.74)
RMR05	Total Invoice or Credit/Debit Amount	425856.74 (amount of \$425,856.74)
RMR06	Discount Amount Taken	0
	Segment Terminator	\

SE Segment

[\(top of example\)](#)

SE Transaction Set Trailer		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Goes with ST header segment 	<ul style="list-style-type: none"> Payment will be marked invalid if the SE-01 data element is non-numeric 	<ul style="list-style-type: none"> <u>SE01</u> – If an offset is taken by the Treasury Offset Program (TOP), PAM will replace the existing value with the existing value plus two (to account for the two new segments added – a negative RMR and an associated REF).
#15 - Example EDI Transmission: SE*13*000000526\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	SE
SE01	Number of Included Segments	13 (Number of segments from ST to SE, including ST and SE)
SE02	Transaction Set Control Number	000000526 (matches ST02)
	Segment Terminator	\

GE Segment

[\(top of example\)](#)

GE Functional Group Trailer		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Goes with GS trailer segment 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> PAM will not alter the GE segment.
#16 - Example EDI Transmission: GE*1*0\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	GE
GE01	Number of Transaction Sets Included	1 (Total number of Transaction Sets included)
GE02	Group Control Number	0 (matches GS06)
	Segment Terminator	\

IEA Segment

[\(top of example\)](#)

IEA Interchange Control Trailer		
Segment Characteristics	Segment Edits	Segment Alterations
<ul style="list-style-type: none"> Goes with ISA trailer segment 	<ul style="list-style-type: none"> The IEA Segment must match the ISA header segment 	<ul style="list-style-type: none"> PAM will not alter the IEA segment.
<i>#17 - Example EDI Transmission:</i> IEA*1*000000000\		
	EDI Data Element Name	Disbursement Data
	Segment Identifier	IEA
IEA01	Number of Functional Groups	1 (Total number of Functional Groups)
IEA02	Interchange Control Number	000000000 (matches ISA13)
	Segment Terminator	\